Issue 1.0 July 2014

Vision 2.3 Twin Duct Air Conditioner/Heat Pump

Optional Low Pressure Hot Water Fan Coil Model Available

powrmatic

www.powrmatic.co.uk

Installation, Servicing, and Users Instructions

Vision2.3

CE

GB&IE

HEATING // VENTILATION // AIR CONDITIONING

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Certificate of Guarantee

Dear Customer

This is to certify that this air conditioner has a limited one year warranty from the date of original commissioning. The air conditioner must be commissioned within 4 weeks of installation.

To make a claim

In the first instance you must contact your appliance supplier, or installer and provide:-

1. The appliance type and serial number.
2. The original commissioning documentation.
3. As much detail as possible on the fault.
   Your supplier, or installer, will then contact Powrmatic to make a guarantee claim on your behalf.

Conditions of Guarantee

1. The air conditioner must have been installed by a competent recognised installer, and in accordance with the manufactures instructions, building regulations and local regulations.
2. The air conditioner has been professionally commissioned, within 4 weeks of installation, and a copy of the Commissioning sheet returned to Powrmatic.
3. The air conditioner has been maintained on a yearly basis by a competent servicing company.
4. The air conditioner has been used in accordance with the manufactures instructions.
5. The correct specification voltage has been used.
6. No unauthorised repairs or modifications have been made.
7. Powrmatic 'General Conditions of Sales' have been observed.
8. Except for the obligation of Powrmatic Ltd to perform warranty repairs during the guarantee period Powrmatic will not be liable in respect of any claim for direct or indirect consequential losses, including loss of profit or increased cost arising from loss of use of the air conditioner, or any event arising there from.

Powrmatic Ltd. Hort Bridge, Ilminster, Somerset, TA19 9PS
Tel: 01460 53535 Fax: 01460 52341
Web: www.powrmatic.co.uk e-mail service@powrmatic.co.uk

Important :This certificate must be kept with the appliance

Installer

Date :_____ Signed _____Installer

Commissioned

Date :_____ Signed _____Commissioning Engineer

Dear Customer - thank you for choosing Powrmatic.

We appreciate you buying one of our high quality products and know that you have made the best choice. We pride ourselves by manufacturing products that provide clean, comfortable and safe working environments worldwide together with the personal & professional service and back-up you deserve. If you have any questions or concerns regarding this product, please contact our Technical Support Team by calling 01460 53535.

Compliance

This unit complies with European directives:

- *Low voltage 2006/95/EC*
- *Electro-magnetic compatibility 2004/108/EC*
- *Use restrictions of hazardous substances in electrical and electronic 2011/65/EC (RoHS2)*
- *Waste electrical and electronic equipment 2002/96/EC(WEEE)*
- *Energy consumption indication on the labels of energy related products 2010/30/EU*

Symbols

Pictograms in the next chapter provides the necessary information for a correct and safe use of the machine in a rapid, unmistakable way.

Editorial pictograms

User
Refers to pages containing instructions of information for the user.

Installer
Refers to pages containing instructions or information for the installer.

Service
Refers to pages containing instructions or information for the CUSTOMER TECHNICAL ASSISTANCE SERVICE installer.

Safety pictograms

Warning
It indicates actions that require caution and a suitable preparation.

Do Not
Refers to actions that absolutely must not be performed.

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Users, Installation, Servicing and User Instructions

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1.1 General Warning (UIS)

After unpacking, check that the contents are intact and that all parts are included. If they are not, please contact the supplier who sold you the appliance.

The appliance must be installed by an authorised Installer. Once the work is done, they must issue a declaration of conformity to the client in compliance with current regulations and with indications on this instruction manual supplied with the appliance.

These appliances have been designed for conditioning and heating rooms, and they must be destined solely for this purpose compatible with their performance characteristics.
The manufacturer refuses any contractual or extra-contractual responsibilities for damage caused to people, animals, or things resulting from incorrect installation, adjustment, maintenance or improper use.

In the event of water leaks, turn off the main switch and close the water taps.
Immediately call the Technical Assistance service or other qualified personnel and do not intervene personally on the appliance.

If the temperature is set too low or too high, not only will it be unhealthy, but it is also a waste of energy. Avoid prolonged direct contact with the air flow.

Do not leave the room closed for long periods. Open the windows periodically to change the air.

This instruction booklet is an integral part of the appliance and therefore it must be kept safely and must ALWAYS accompany the appliance even when the later is transferred to another owner or user, or moved or sold. If it gets damaged or lost, please request another copy.

Any repair or maintenance operation must be performed by a qualified person in accordance with this booklet. Do not modify or tamper with the appliance as this could lead potential danger and the manufacturer will not be liable for any damage caused.

1.2 Fundamental safety rules (UIS)

We would like to remind you that some fundamental safety rules should be followed when using products that work with electricity and water.

The use of the appliance by children and unassisted disabled persons if forbidden.

It is forbidden to touch the appliance if barefooted or with wet or damp parts of the body.

It is forbidden to clean the appliance without having first disconnected the appliance from the mains power supply by turning off the mains switch.

It is forbidden to modify or adjust safety devices without authorisation and instructions from the manufacturer.

It is forbidden to pull out or twist the electric cables coming out of the appliance, even if they are disconnected from the pains power supply.

It is forbidden to introduce objects and substances though the air inlet and outlet grids.

It is forbidden to open the access doors to the internal parts or the appliance without having turned off the mains switch first.

It is forbidden to leave the packing material within the reach of children as they could be a source of danger. This material should be recycled or disposed of properly.

It is forbidden to climb onto the appliance and/or to place any type of object on top of it.

1.3 Description (UIS)

The Vision 2.3 is the new solution by Powrmatic, a significant step towards reducing the aesthetic impact of air conditioners. Being only 16 centimetres deep, the Vision 2.3 is the thinnest and less bulky in this category, therefore both the internal and external aesthetic impact is kept to a minimum.

Optimised Capacities

The conditioning capacity of the Vision 2.3 have been optimised so as to obtain the right temperature for the best level of comfort and, therefore less consumption and less noise. Thanks to the careful choice of sound insulation materials, the noise is similar to that of a standard wall split unit and consumption is drastically contained thanks to the new direct current fan.

162 millimetre holes

An important choice, not only design-wise, but also because of a considerable installation advantage: it is easier to find drilling tools, with lower aesthetic impact.

Easy to install

The Vision 2.3 can be installed on any perimeter wall either low or high. Everything needed for installation (template, support bracket, hole pipes and external grids), excluding the drill, is included in the box.

Folding external grids

Remote control and touch screen display.
In addition to the remote control, the touch screen display on the unit enables the setting of any function. There is even a 'lock' mode to avoid any improper use. It is possible to deactivate the 'heating' mode by simply touching the screen. the unit then works in 'cool only' mode, without the need to use the condensation drain pipe. The orientation of the air flap can also be adjusted by simply pressing one key.

1.4 Receipt and unpacking (UIS)

The packing is made of suitable material and carried out by expert personnel. All units are checked and tested and are delivered complete and in perfect condition. However please perform the following instructions to check the condition of the received product:

- Upon receipt , check if the box is damaged. If that is the case, accept the goods with reservations and keep photographic evidence of any damage found.
- Unpack and check the contents against the packing list.
- Check that none of the parts have been damaged during shipment. In case of damage, report it to the delivery company within 3 days of receipt by registered letter with return receipt and attaching photographic documentation. A copy should also be sent by fax/email to the MANUFACTURER. No notice of damage will be accepted after 3 days from delivery.

Keep the packing for at least the length of the warranty should you need to return the appliance to the service centre for repair. dispose of the packing materials in compliance with current regulations on waste disposal.

1.5 Storage (UIS)

If the conditioner is not to be installed immediately, store the box in a closed environment, protected from atmospheric agents and isolate it from the floor using planks or pallets.

Do not turn upside down.

1.6 Handling (UIS)

The unit is packed singularly in a cardboard box. Boxes can either be carried singularly by hand by two operators or loaded on trolley, maximum three units high.

Handling must be performed by qualified personnel, with specific tools and with equipment suitable for the weight of the equipment.

The appliance is unbalanced on the right (compressor side)

During transportation, the appliance must be kept in a upright position.

1.7 Shipping dimensions and weight (UIS)

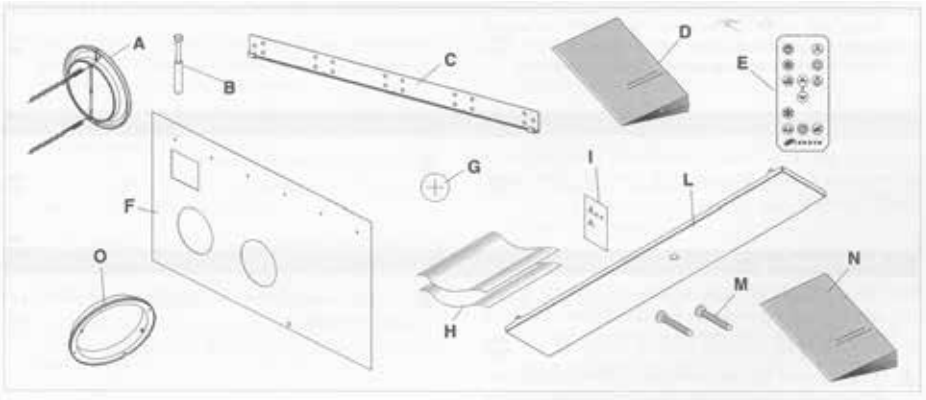
Packing Dimensions		"Vision 2.3" 10 HP
Weight	Kg	50
Length	mm	1110
Height	mm	660
Depth	mm	260

1.8 Supplied components (UIS)

The air conditioner supplied comprises of the parts listed in the following table. Before assembly, please check that they are all included.

A	External grids for air inlet and outlet with springs and chains (2 pcs)
B	Screws and plugs kit (6 pcs)
C	Bracket for wall mounting
D	User manual
E	Remote control
F	Paper template for holes

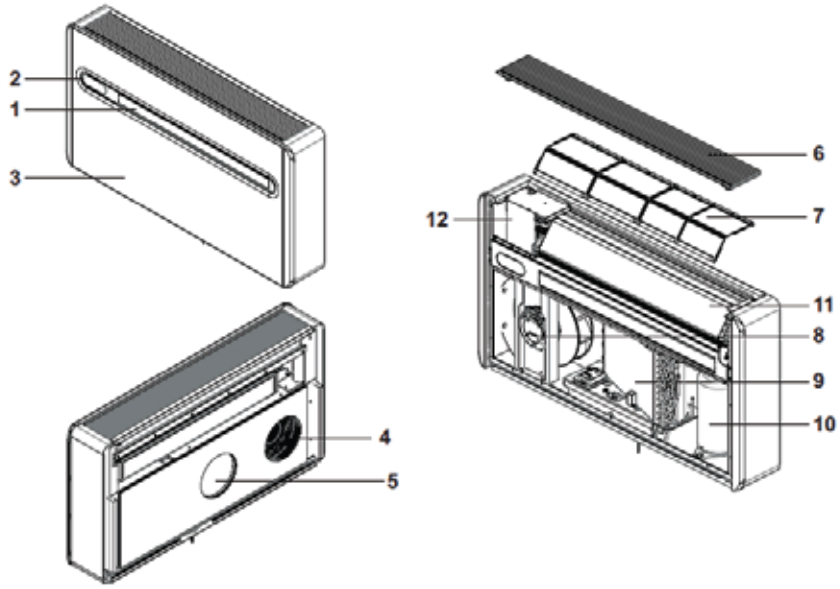
G	CR2025 3V remote control battery
H	Wall inlet pipes (2 pcs)
I	Energy efficiency label
L	Bottom cover
M	Screws for mounting the bottom cover (2 pcs)
N	Installation manual
O	Internal flange (2 pcs)



1.9 Unit parts (UIS)

1	Air outlet flaps
2	Touch-screen display
3	Front panel
4	Outdoor air suction
5	Outdoor air outlet
6	Air suction grid

7	Air filters
8	Outdoor air outlet fan
9	Outdoor air heat exchanger
10	Compressor
11	Indoor air heat exchanger
12	Electronic board



2.1Installation mode (0)

Before installing the conditioner, it is essential to calculate the summer thermal loads (and winter ones for the models with a heat pump) of the room. The more accurate calculations, the better the product will work. Please refer to current regulations to carry out calculations. For big installations please call a study specialised in thermodynamics. Try to reduce the thermal refrigeration load of the room following these instructions:

Cover large windows exposed to sunlight with curtains or with external masking (blinds, porches, reflecting films etc.)

The room must remain closed for as long as possible. Avoid using halogen lamps or other high energy consumption appliances such as small ovens, steam irons, cooking plates etc.

2.2 Choosing the position of the unit (0)

For a better performance of the appliance and to avoid malfunctions or dangerous situations, the location of the unit must meet the following requisites:

- Respect the minimum distances indicated in the picture.
- The wall on which you wish to anchor the unit must be robust to support its weight.
- Leave enough space around the unit to perform maintenance operations.
- Nothing must obstruct the air flow both in the top suction part (curtains, plants, furniture) and in the lower outlet part, as it could cause vibrations which might prevent the appliance form working correctly.

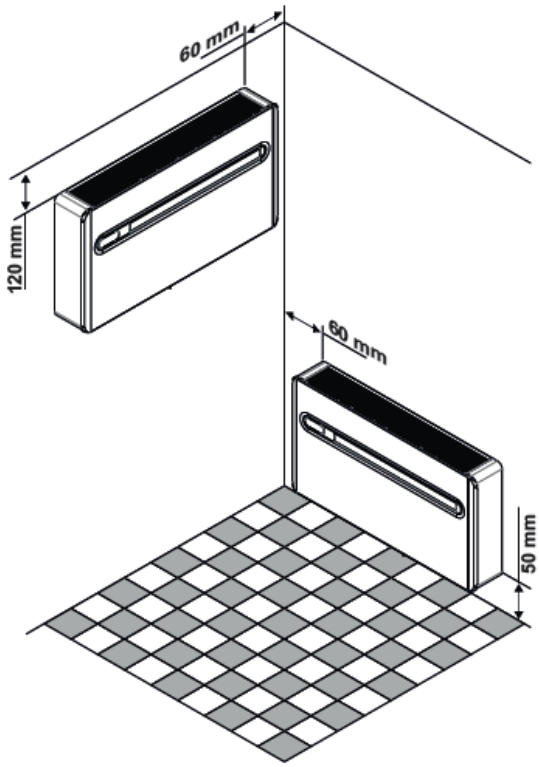
The appliance must be installed against a wall connecting with the outside.

Check that there are no structures or systems (beams, pillars, hydraulic pipes, electrical cables etc.) in the part of the wall that must be drilled. Check that nothing is placed in front of the holes thus obstructing the air flow (plants and leaves, panels, shutters, grates, etc)

The unit should not be installed in a position where the air flow aims directly at people nearby.

Do not force the air flap open.

The appliance must not be installed directly above, or below another electrical appliance (TV, radio, fridge, etc.) or above a source of heat.



2.3 Assembling the unit (I)

The maximum length of the holes is of 1 m and there must be no bends. Use the supplied grids or grids with the same characteristics.

For the unit to work, two holes must be placed as indicated on the template.

The holes on the wall must be drilled using suitable equipment that does not cause damage or excessive inconvenience to your client. The best tools to make big holes are special drills (called “core drills”) with a high torque and whose speed can be adjusted according to the diameter of the hole and the material to be drilled. In order to avoid excesses dust and debris in the room, “core drills” can be combined with suction systems composed of a vacuum connected and a suction cup which can be placed next to the drill. In order to make the holes, proceed as follows.

- Place the template provided against the wall, respecting the minimum distances from the ceiling, the floor, and the side walls, as indicated on the template. The template can be held in place using adhesive tape. A spirit level can be used to ensure the unit is square.
- Mark the centre of each hole with a small drill or a punch before actual drilling commences.
- Using the core drill, make two holes for the inlet and outlet air.

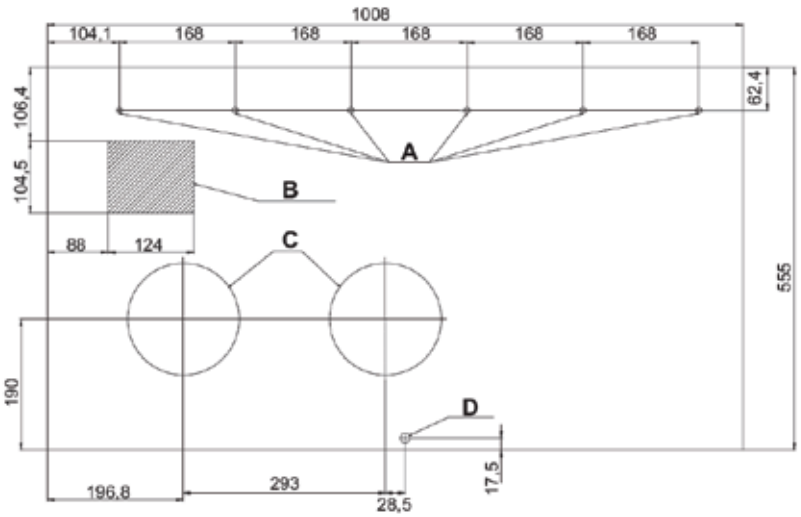
The holes must be drilled slightly downward towards the outside, to avoid water from entering the building.

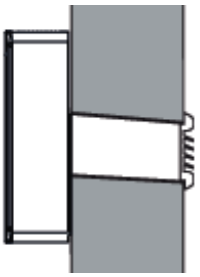
The majority of the removed material is expelled outwards so please be careful that it does not hit people or objects. In order to avoid breaking the outer plaster, be careful while drilling the final part of the hole and ease the pressure on the core drill.
Drill the 6 holes for the bracket as indicated on the template.
The appliance weights more on the right side, so make sure it is properly supported on this side. The holes must have an 8mm diameter to accommodate the 6 supplied plugs.
In any case, check the characteristics and the consistency of the wall to see whether specific plugs may be needed.

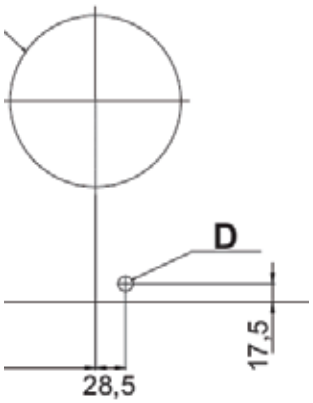
The manufacturer cannot be held responsible for any underestimates or the structural consistency of the anchoring arrangement made by the installer. We therefore encourage you to pay the utmost attention to the operation, as if performed badly it could cause serious injury or damage.

Drill a hole in the position indicated on the template for those heat pump appliances without a condensation drain built in the wall in order to enable the drainage of condensation.

A	Holes for M8 Plugs
B	Electrical connection area
C	Ø162mm holes for air channelling
D	Ø14mm condensation drain







Condensation drain predisposition

For heat pump appliances, a condensation drain pipe (Ø10mm, internal, not supplied) must be connected to the pipe on the top part of the appliance.
A solenoid valve will start the flow of the condensation from the internal collection tray when the maximum level has been reached. For cooling only appliances, said pipe must be connected if the appliance is going to be used with low external temperatures, (below 23°C). As it is a gravity drain, it is essential for the line to have at least 3% slope minimum at every point. A rigid or flexible pipe can be used with a minimum internal diameter of 10mm. If the line flows into a sewage system, it is necessary to be trapped before connecting to the drain. Said trap must be placed at least 300mm under the mouth of the appliance.

If the line flows into a container (e.g. a tank) do not close the container hermetically and avoid immersing the draining pipe into the water.

The hole for the condensation pipe must always lean towards the outside.

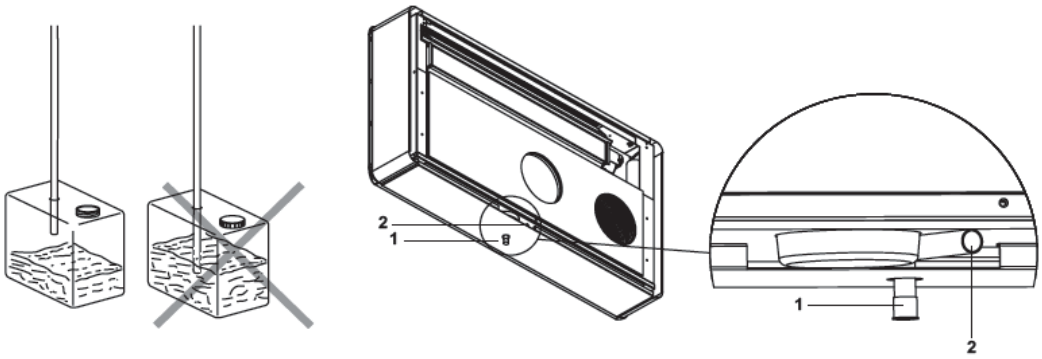
The exact position in which to place the pipe mouth is indicated on the template.

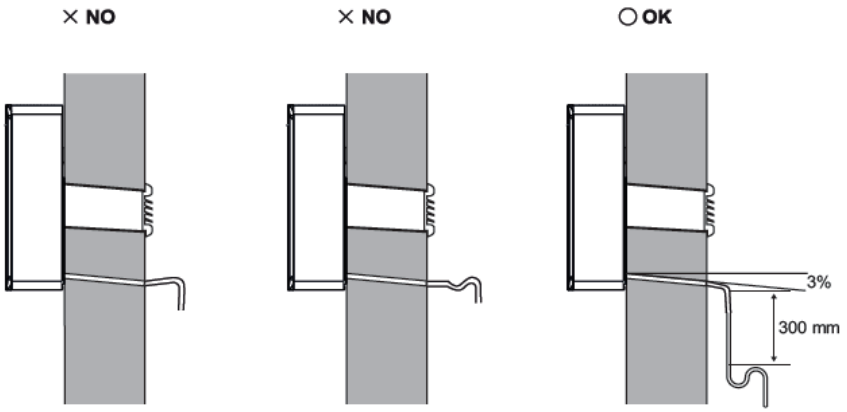
Check that the expelled water does not cause any damage, or problem to people or objects. During winter this condensation can freeze to form ice on pathways.

When connecting the condensation drain, be careful not to squeeze the rubber duct.

It is possible to empty the collecting tray using the safety drain at the base of the appliance if necessary.

1	Safety drain to empty tray
2	Condensation drain duct





2.4 Assembling air ducts and external shutters (Ⓘ)

Once the holes have been made, place the supplied plastic sheet inside them.
Roll up the sheet and insert it in the hole, checking that the joint is facing upwards.
Use a cutter to remove any excess pipe.
To place the external grids, proceed as follows:

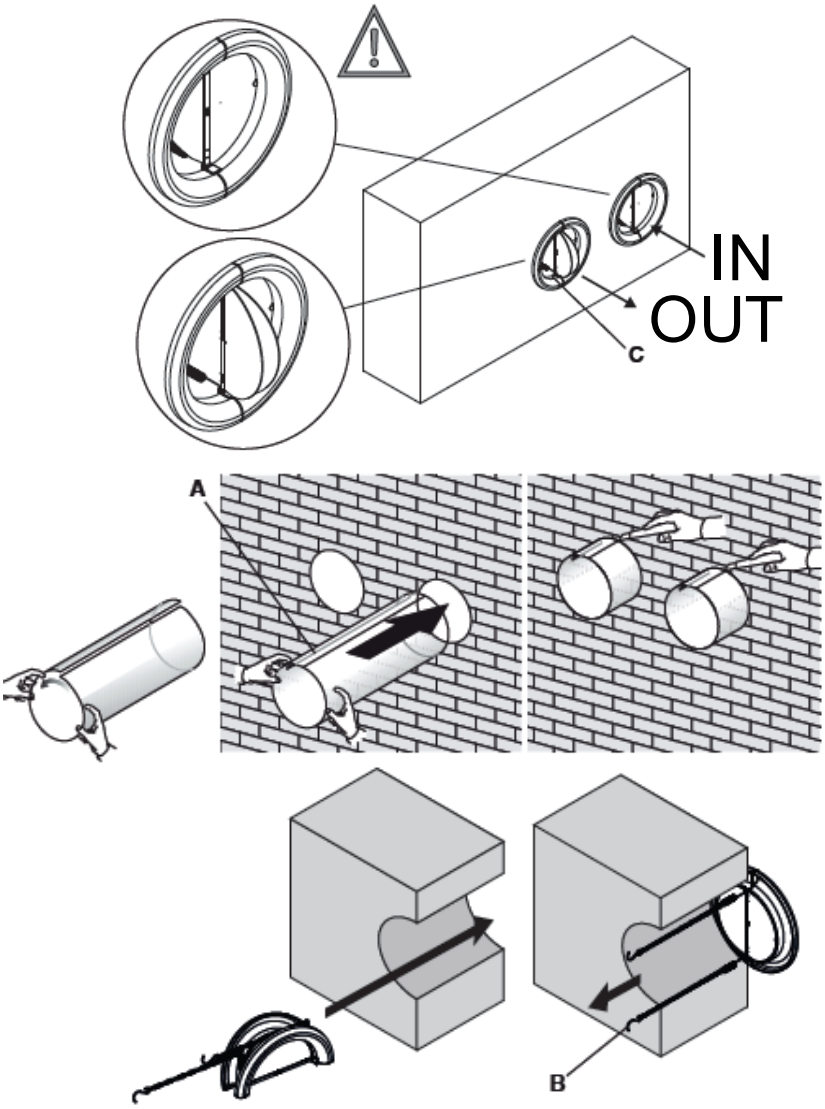
- Connect the chains to the ends of the springs.
- Fold the external shutters.
- Insert your arm in the hole to push the shutter to the outside, whist holding the the chain with the other hand to prevent the shutter from falling.
- Open the shutter inside the hole.
- Rotate the shutter to bring the flat into the vertical “C” position and check that the closing mechanism works.
- Pull the chains by tensioning the springs.
- Insert the internal flange in the hole with the internal hooks in the vertical position.
- Fix the chains to the internal flange’s hooks
  Use a bolt cutter to remove any excess chain.
- Anchor the hook of the chain to wall “B”.

Use only the supplied grids or grids with the same characteristics.

The grids must be positioned with the flaps vertical.

The shutters are different. Check the opening of the shutter to determine if they are the inlet or outlet shutter, and fit accordingly.

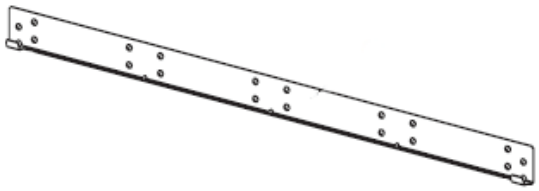
A	Junction line
B	Internal flange
C	Flap in vertical position

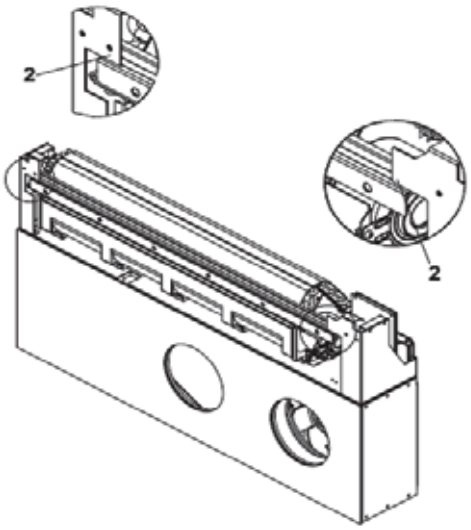


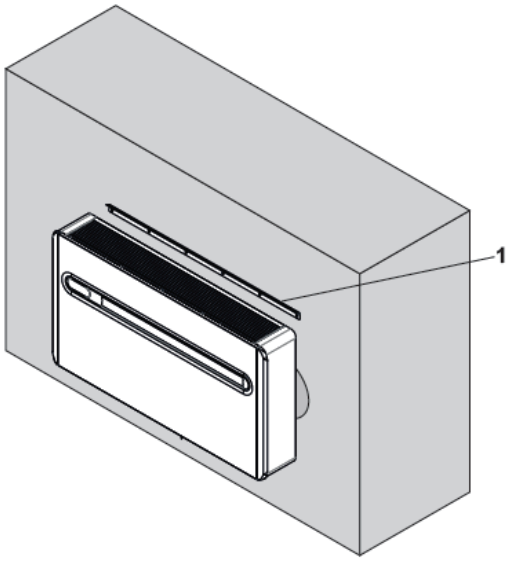
2.5 Mounting the appliance on the bracket (I)

After checking that the bracket is anchored to the wall and that all necessary electrical connections and condensation drain have been made, you can mount the conditioner. Lift it by the sides of the bottom base until the bracket fits on all of the right spots on the appliance. In order to ease the operation, slightly tilt the appliance towards you. Direct electrical connections (disconnecting the power supply cable) and the anchoring of the condensation drain must be carried out after having spaced the appliance from the wall using wooden wedges or any other similar object.
Once the work is done, check that there are no openings on the back of the appliance especially where the air ducts are connected.

1	Bracket
2	Bracket anchoring points







2.6 Electrical connection (I)

The appliance is equipped with a power cord and plug (Y-type connection, the cord can only be replaced by the manufacturer, the assistance centre or a qualified installer) If using a socket near the appliance, insert the plug.

Before connecting the conditioner check that:

- The power supply voltage and frequency values comply with the data plate of the appliance.
- The power supply line is provided with a suitable earth connection and that it is dimensional for the maximum absorption of the conditioner (minimum cable section equal to 1.5mm^2)
- Power is only supplied using a suitable socket through a supplied plug.

The power cord must be replaced only by the technical assistance service or by authorised personnel.

The appliance must be connected to 230V/50Hz mains via an omnipolar switch with a contact opening distance of a minimum of 3mm, or using a device enabling the complete disconnection of the appliance in overvoltage III category conditions.

It is possible to carry out the electrical connection using a cable inside of the wall as indicated in the installation template (recommended for installations in the upper part of the wall)
Please check that the power supply is provided with suitable protections against overloads and/or short circuits (using a 10 at delay fuse or other equivalent devices is recommended)

This operation must be performed only by the installer or by authorised personnel in compliance with current national regulations.

It is essential to disconnect the main switch before making any connection or maintenance operation in order to avoid any risk of electrocution.
To carry out direct connections and substitute the power cord using the cable in the wall, proceed as follows:

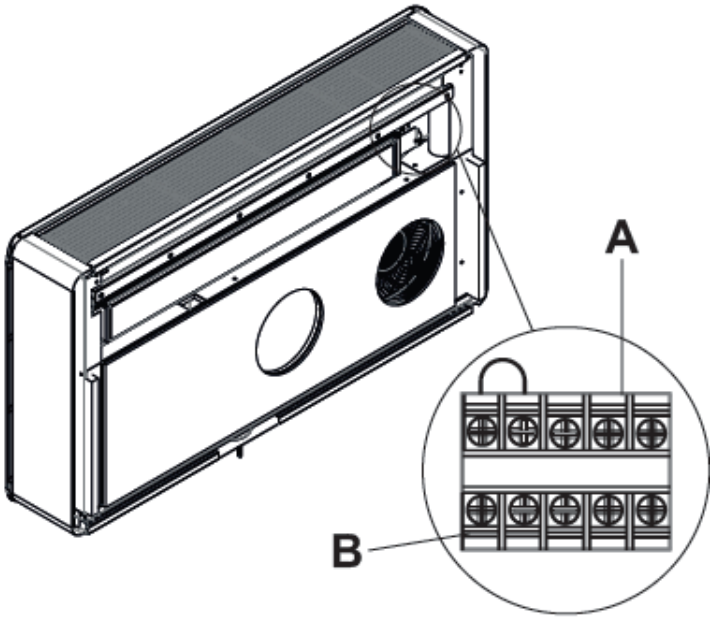
- Space the appliance from the wall using wooden wedge or a small object.
- Disconnect the power cord by unscrewing the 3 screws from the terminal board.
- Connect the wall cable checking that the power supply line is provided with a suitable earth connection and that it is dimensioned for the maximum absorption of the conditioner (minimum cable section equal to 1.5mm^2)

These operations must be carried out with the appliance already placed on the bracket, therefore read the following instructions carefully before completing the connection.

CP presence contact input connection

When the CP contact opens (connected to a free non-live contact) the appliance is put in standby and CP appears on the display.
Using this contact it is possible to connect an external device that inhibits the function of the appliance such as open window contact, remote control on/off, infrared presence sensor, qualification badge etc.

A	230V50Hz Electrical power supply terminal board
B	CP pressence contact



2.7 High/Low installation configuration (0)

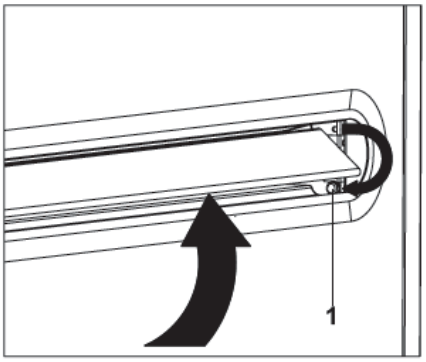
The unit can be installed either at high level or low level on the wall, in order to optimise air distribution and comfort, the direction of the air flow can be modified by adjusting the position of the air flap.
The appliance is supplied ready to be installed in the lower part of the way, so air is dispensed upwards. The same configuration can also be used high on the wall in cooling mode, which increases the air flow in the room (coanda effect)

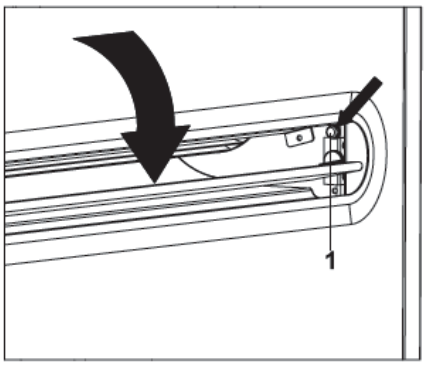
This operation must be performed whilst the appliance is switched off and disconnected.

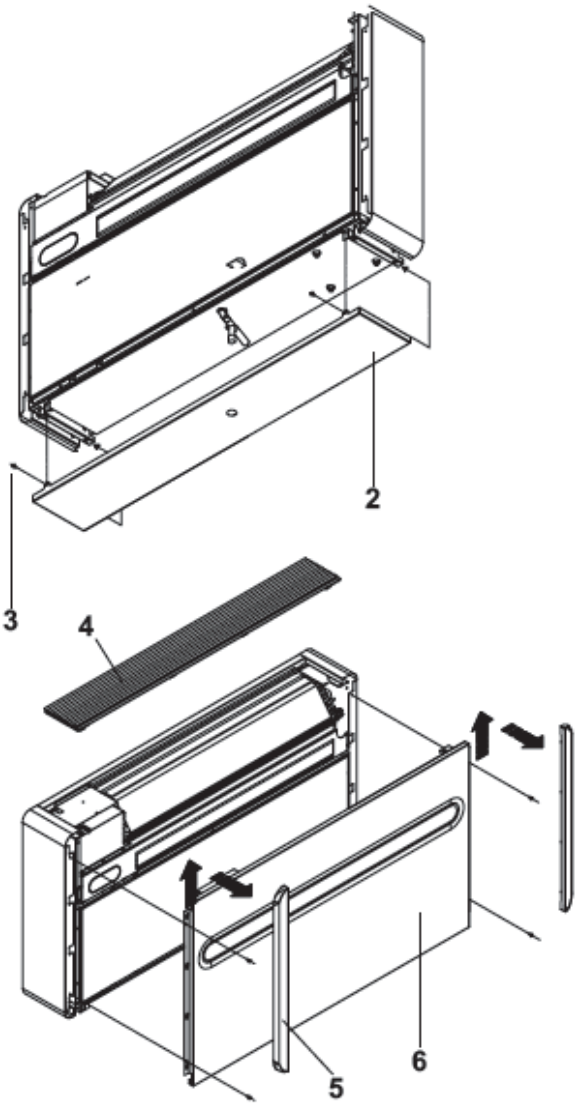
Modifications from lower wall to the upper wall position

- Open the air outlet flap gently.
- Remove the flap opening block insert located internally on the air outlet mouth and place it in the lower hole.
- Remove the upper grill.
- Remove the two plastic side panels by moving them up.
- Unscrew the fixing screws
- Remove the front panel
- Place the bottom cover and fix it with the supplied screws.
- Refit in the reverse order.

1	Block insert
2	Bottom cover
3	Fixing screws
4	Upper grill
5	Plastic side panels
6	Front panel







After adjusting the air outlet flap position, it is necessary to set up the electronic control of the appliance:

- Press and hold the button on the display for 5 seconds.
- The “dn” (lower wall) symbol lights up on the display.
- Press the button again.
- The “uP” (upper wall) symbol lights up on the display.
- If no other operations are performed in the following 2 seconds, the new setting is memorised.

For the appliance to work properly, each time the configuration of the air outlet flap is modified the electronic control must be set.

2.8 Setting cool only or heat only modes (0)

It is possible to deactivate the heating or the cooling modes following a simple procedure.
Pres and hold the “A” key for 5 seconds until the “HC” (heating and cooling) appears on the display.
Press the “A” key for 1 second for the Co (cooling only) mode.
Press the “A” key for Ho (heating only) mode.
Wait for 3 seconds without touching anything to memorise the setting.

2.9 Touch-screen display key lock (0)

The key lock is activated by press and hold the Timer symbol for 3 second.
The key pad is then locked and no operations are available to the user.
The stand-by symbol flashes at 1 second intervals.
To deactivate the lock, press and hold the Timer symbol for 3 seconds.
Any key on the remote control will also deactivate the lock!

2.10 Operations, tests and anomaly diagnosis (0)

The conditioner can perform a short self-diagnosis cycle to check the temperatures detected by the 4 probes and the status of the 3 inlets.
In order to activate the self diagnosis function, press the button within 10 seconds from the electric power being turned on.
The display will light all symbols for 2 seconds and then it will show the 7 test information at 2 second intervals.
After 5 cycles, or when any key is pressed either in the display or on the remote control, the self diagnosis mode will stop.

If the conditioner stops because of an alarm (see the following table), please contact the supplier with the code.

Display code	Cause
E1	Broken room temperature RT probe
E2	Broken evaporative battery IPT probe
E3	Broken outdoor air temperature OT probe
E4	Broken conditioner battery OPT probe
E5	Broken indoor air fan motor
E6	Broken outdoor air fan
E7	Lack of communication with the display

Open CP contact

If the contact is not closed on the CP connections the appliance will not start and the CP alarm appears on the display.

Emergency condensation air discharge

Should any anomaly occur in the condensation water system, the maximum level float blocks the conditioner and the OF code appears on the display.
During cooling and dehumidification, electronics switch the compressor off and keeps the water distribution system active with the battery - together with the fan - to disperse excess water in the container. If the problem persists, please contact the assistance service.
During heating, condensation should drain freely through the specific pipe. In the event of an alarm, check that the condensation pipe is not bent or obstructed, thus preventing the water from flowing out.

Operation after installing

Before leaving, collect the packaging and clean any dust on the appliance with a damp cloth. These operations, though not strictly essential, transmit a sense of professionalism to the user.

In order to avoid unnecessary calls from the user, it is best, before leaving to :

- Explain the contents of the Manual.
- Explain how to clean the filter.
- Clarify when and how to call the Assistance Service.

3.1Periodic Maintenance (Ⓢ)

The air conditioner you have bought has been designed to keep maintenance operations to a minimum, which only concern the following cleaning operations.

External cleaning

Before any cleaning and maintenance operation disconnect the unit from the mains by switching off the mains switch.

Wait until the parts have cooled down to avoid getting burned.

Do not use abrasive sponges or abrasive or corrosive detergents to avoid damaging the varnished surfaces.

When necessary, clean the external surfaces with a soft damp cloth.

Cleaning filter

The air conditioner you have bought has been designed to keep maintenance operations to a minimum, which only concern the following cleaning operations:

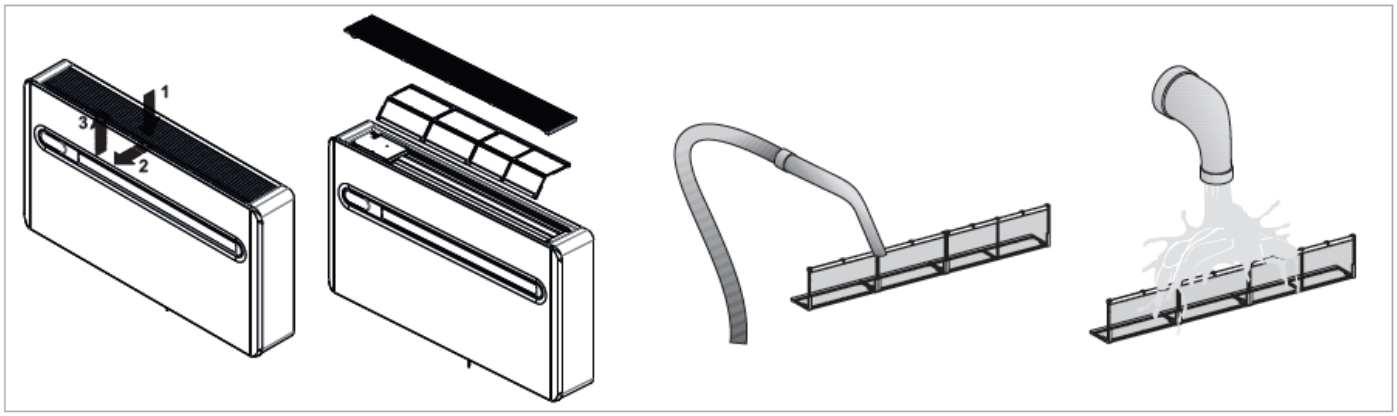
- Clean the air filter after a period of continuous use and in accordance with the concentration of impurities in the air, or when you wish to start-up the appliance after a period of inactivity.
- The filter is placed on the top part of the appliance.

To extract the filters:

- Open the grid and remove it.
- Extract the filter by lifting them.
- Remove the dust from the filter with a vacuum cleaner or wash the unit in running water without detergents or solvents and leave to dry.
- Put the filters back on top of the batteries, taking care to position them correctly.
- Put the grid back.

Check that the panel is mounted correctly after cleaning operations.

Using the appliance without the filter is prohibited.



3.2 Troubleshooting (§)

In case of a malfunction, please refer to the following table. If, after performing the suggested checks, the problem is not solved, please contact the authorised technical assistance.

Anomaly	Possible cause	Solution
The appliance does not switch on.	No power supply	Check you have a power supply to the unit (try turning on a light switch, or plugging in another electrical device.)
		Check that the exclusive magneto-thermic switch that protects the appliance has not engaged (if it has, reset it). If the problem repeats immediately contact the supplier for assistance)
	Batteries have run out	Check that the appliance turns on by the touch screen display, and change batteries.
The appliance does not cool/ heat enough.	The set temperature is too high or too low.	Check and adjust the temperature on the remote.
	The air filter is clogged.	Check the air filter and clean if it is necessary.
	Check that there is no other obstructions blocking air flow either internally or externally	Remove anything that might block the air flow.
	The thermal refrigeration load has increased (for example, a door or window has been left open or an appliance has been installed in the room, generating heat (ie computer, or fridge))	Try to reduce the thermal refrigeration load of the room with the following advice: Cover large windows exposed to sunlight with curtains or with external masking (blinds, porches, reflecting films. etc) The room must remain closed for as long as possible. Avoid turning on halogen lamps or other high energy consumption appliances such as small ovens, steam irons, cooking plates etc.)

Display alarms

An alarm code appears on the display in case of anomalies. Some of the functions remain active (see FUNCTIONING column)

The only way to solve the problem is to disconnect and reconnect the appliance, if the alarm still appears, please contact the authorised technical assistance.

Alarm display	Code	Functioning
E1	Broken room temperature RT sensor	It is still possible to activate the Cooling, Dehumidification and Heating modes. It only monitors the antifreeze function of the internal battery.
E2	Broken internal battery IPT sensor	None of the functioning modes work.
E3	Broken outside temperature OT sensor	None of the functioning modes work.
E4	Broken out side battery OPT sensor	It is still possible to activate the Cooling, Dehumidification and heating modes. Defrosting is performed at fixed times.
E5	Broken internal ventilator motor	None of the functioning modes work.
E6	Broken external ventilator motor	None of the functioning modes work.
E7	Lack of communication with the display	None of the functioning modes work.
CP	Open CP contact	The appliance only works if the contact is closed. Check that the clamps are connected.
OF	Maximum level float intervention	During cooling and dehumidification, electronics switches the compressor off and keeps the water distribution system active with the battery - together with the fan - to disperse excess water in the container. During heating, condensations should drain freely through he specific pipe. In the event of an alarm, check that the condensation pipe is not bent or obstructed, thus preventing the water from flowing out.

3.3 Technical data (§)

Please read the data plates to obtain the technical data listed below.

- Power supply voltage
- Maximum absorbed power
- Maximum absorbed current
- Amount of refrigerant gas
- Casing protection level
- Max. Working pressure

Technical data	**U.M.**	**Vision 2.3 10HP**
Cooling power (1)	kW	2.30
Heating power (2)	kW	2.25
Power absorbed when cooling (1)	W	850
Power absorbed when heating (2)	W	725
Annual energy consumption for cooling (1)	kWh	425
Dehumidification capacity	l/h	1.1
Power supply voltage	V-F-Hz	230-1-50
EER	W/W	2.71
COP	W/W	3.10
Energy efficiency rating when cooling		A
Energy efficiency rating when heating		A
Internal-external ventilation speed	No.	3
Dimensions (WxHxD)	mm	1030x555x170
Weight	Kg	48
Noise level (min -max)*	dB(A)	32/41
Wall holes diameter	mm	162
Refrigerant gas		R-401A
R410A refrigerant charge	g	460
Maximum adsorbed power	W	920
Maximum absorbed current	A	4.1
Maximum working pressure PS	MPa	3.8
Casing protection level		IPXO

Refer conditions

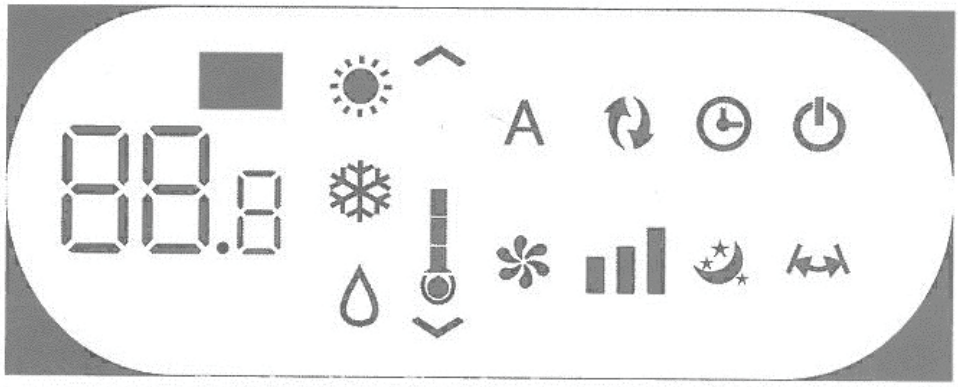
		Room t	External t
(1)	Cooling mode tests	DB 27°C - WB 19°C	DB 35°C - WB 24°C
(2)	Heating mode tests	DB 20°C - WB 15°C	DB 7°C - WB 6°C

* Noise pressure measured 1 m away and 1.5 m high Regulation EN 14511.1.2.3.4

Operating limits

	Internal ambient temp.	Outside ambient temp.
Maximum operating temperature in cooling mode	DB 35°C - WB 24°C	DB 43°C - WB 32°C
Minimum operating temperature in cooling mode	DB 18°C	DB -5°C
Maximum operating temperature in heating	DB 27°C	DB 24°C - WB 18°C
Minimum operating temperature in heating	DB 5°C	DB -10°C

4.1 Management of the appliance with the touch-screen displayd (U)



Normally, the display shows the operating status (see Description of machine functioning paragraph) as well as any alarms (see Display alarms paragraph).

In addition, it is possible to select the various functions by pressing the symbols.

4.2 Management of the appliance with the remote control (U)

It is possible to select the various modes by pressing the buttons (see Description of machine functions paragraph).

The remote control provided has been designed to be functional and resilient, however it must be handled cautiously.

Avoid:

- Expose the remote control to fluids.
- Dropping or hitting the remote control.
- Leave exposed to direct sun light.
- Obstruct between the remote and the appliance whilst using it.

In addition:

- If there are other appliances using remote controls in the room (TV, radio, stereos, etc.), interference may occur.
- Electronic or fluorescent lamps can interfere with communication between the remote and the appliance.
- Remove the battery if not using the remote for a long period.

Battery insertion

Only CR2012 3V dry lithium batteries must be used (supplied). Used batteries must be handed over to a specific collection area as arranged by the Local Authorities for this type of waste.
In order to insert the batteries, open the specific cover in the bottom part of the remote. The battery must be inserted respecting polarity. Once the battery is inserted close the cover.

4.3 Description of machine functioning (U)

General start-up and management

In order to manage the appliance using the remote control and the touch-screen, the main switch on the electrical power supply lime must be turned on (its exact position will be best known by the technician who installed the appliance) or the power supply plug must be connected to the system socket.

Once such operations have been performed, it is possible to manage the system using the symbols on the touch-screen or the remote control in order to transmit commands to the internal unit, the top part of the remote must point towards the display of said internal unit. The reception of the command is confirmed by a beep and by the display. The maximum distance for the remote control to work is approximately 8 metres.

Key/Display	Operation
⚠	The buttons on the remote and the keys on the touch-screen display have the same function.
88.8	When the appliance is on, 3 digits on the display will show the room temperature.
^	- It is possible to adjust the set point between 16 and 31°C
v	⚠ Avoid setting the temperature too low or too high as, in addition to being unhealthy, it is a waste of energy.
⏻	**Switching the appliance on and off** It is possible to switch the appliance on or off (stand-by) by pressing the specific button. The control system of the appliance is equipped with a memory, so setting will not be lost if the appliance is switched off in the event of low voltage. The button must be used to activate or deactivate the appliance for short periods of time. ⚠ In case of long periods of inactivity, the appliance must be deactivated either the main switch or the plug from the socket.
A	**Well-being button (economic automatic mode)** By choosing this mode on the appliance, it is set so as to obtain the best level of comfort in the room. The conditioner selects the mode automatically (cooling or heating) according to the temperature set and ventilation speed according to the temperature of the room.
❄	**Cooling only mode** - In this mode, the appliance dehumidifies and cools the room.
^	- It is possible to set the desired temperature between 16 and 31°C and, if such temperature is lower than the room temperature, the compressor starts up after three minutes (maximum) and the appliance starts dispensing cool air, maintaining ventilation active even if the set point has been reached.
v	
💧	**Dehumidification only mode** In this mode, the appliance dehumidifies the room. Selecting this mode is useful during mid-seasons, that is to say during those days (e.g. rainy ones) when the temperatures is rather pleasant, but excess humidity causes discomfort. It is normal for the appliance to work intermittently.

Key/Display	Operation
	Ventilation only mode By selecting this mode, the compressor is not activated and the appliance does not intervene on room temperature or humidity. It is possible to choose the fan speed.
	Heating only mode - In this mode, the appliance heats the room. ⚠ Set on heating only mode, the appliance defrosts the evaporative battery periodically if necessary. During this phase, the conditioner does not dispense warm air, even if it is internal parts are on except for air ventilation.
	- It is possible to set the desired temperature between 16 and 31°C and, if such temperature is lower than the room temperature, the compressor starts up after three minutes (maximum) and the appliance starts dispensing warm air.
	Nocturnal well-being button While the appliance is on, in the selected cooling or heating mode. It is possible to choose different functions by pressing the button in order to maximise noise reduction, energy saving and nocturnal well-being regulation. In this mode, ventilation is set on minimum speed. This mode should be activated right before going to sleep. - In cooling mode the set temperature is risen by 1°C after one hour and by another degree after two. After the second hour, the temperature is no longer changed and, after six hours, the appliance is put in stand-by. - In heating mode the set temperature is lowered by 1°C after one hour and by another degree after two. After the second hour, the temperature is no longer changed and, after six hours, the appliance is put in stand-by. This function is not available for dehumidification only, ventilation only and economic automatic modes and can be excluded any time (ideally once awake) by pressing the button again. If the timer has also been set, the appliance will turn off at the set time.
	Control of air flow direction By pressing the specific button, it is possible to select the continuous oscillation of the mobile air outlet flap - in such case, the symbol on the display is lit - or block it in any position. ⚠ IMPORTANT: the mobile flap must never be moved manually.
	Fan speed control By pressing this button, the speed changes according to the following sequence: Minimum, Maximum and Automatic. The higher the speed, the better the performance, though the appliance will be more noisy. By selecting the Automatic speed (which can be visualised by sliding the 3 speed bars on the display), the microprocessor regulates the speed automatically, increasing or decreasing it according to the difference between the room temperature and the set temperature. It is not possible to control the speed while in dehumidification only and nocturnal well-being mode, as the appliance can only work in low speed.

Key/Display	Operation
	Timer mode setting - The appliance offers users the chance to programme its activation and deactivation according to their needs.
	- While the conditioner is on, it is possible to programme the switch-off time by pressing the timer button and setting the number of hours (1 to 24) after which the appliance will be put in stand-by. - When the conditioner is off, it is possible to programme the switch-on time by pressing the timer button and setting the number of hours (1 to 24) after which the appliance will start-up.
	- Press the button to confirm.
	Touch-screen display key lock - The key lock is activated by keeping the timer symbol on the touch screen pressed for three seconds. Any action is prevented by the user. The stand-by symbol flashes at 1 second intervals. - To deactivate the lock, keep the timer symbol pressed for three seconds again. Any key on the remote control deactivates the lock!

Managing the appliance if the remote control is not available

If you lose the remote control, if it brakes or if the batteries run out, the appliance can be managed using the touch-screen display.

command is confirmed by a beep and by the display. The maximum distance for the remote control to work is approximately 8 metres.

4.4 Advice for energy saving (Ⓤ)

- Always keep filters clean (see maintenance and cleaning chapter).
- Keep doors and windows closed.
- Avoid direct sunlight in the room (use curtains, pull down blinds or close shutters.
- Do not obstruct the air flow (inwards and outwards) as, on top of affecting performance, it prevents the system from working correctly and it may cause irreparable damage to the appliance.

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